

## **Attachment for Selectable Output Weapon**

### **1. GENERAL INFORMATION**

#### **1.1 Agency Name and Address for the submission of full proposals:**

Commander  
Naval Air Warfare Center Weapons Division  
Code 210000D (Attn: K. Ferguson)  
429 E. Bowen Rd., Stop 4015  
China Lake, CA 93555-6108

#### **1.2 Response Date**

Full proposals are due no later than 1500 (3:00 P.M.) (Pacific Standard Time) on 14 September, 2009.

Note: E-mailed and faxed proposals are not acceptable.

#### **1.3 Research Opportunity/Response Date/Potential Funds**

The Naval Air Warfare Center Weapons Division (NAWCWD) along with the Office of Naval Research (ONR) Future Naval Capabilities Office presents the following research and development opportunity. The new technology demonstration, sponsored by the ONR with technical management at NAWCWD, will deliver a new capability, cockpit selectable output for a 500 pound class bomb.

Research and development activities will most likely involve design studies, component builds, structural, subsystem and system capability tests and analyses, and ultimately static arena tests to evaluate capabilities.

This Broad Agency Announcement (BAA) is directed solely to the task of developing technology for a cockpit-controlled, selectable output 500 pound class bomb. The technology development is directed toward the needs of the Precision Strike Weapons Program Office (PMA-201) and Naval Aviation Requirements Office (N88).

It is anticipated that up to \$9.9M will be available over the next 5 years for the technical development, but this is subject to appropriation and approval by ONR. It is possible that multiple contracts will be awarded in FY10 based on evaluation of the responders' potential to accomplish the program tasks. It may be that an individual offeror will not have all the skills to execute the entire range of program tasks. Contracts may be extended to those who have the expertise to tackle selective tasks as part of the overall requirements, but it would be to their advantage to put forth a plan coordinated with other vendors for the completion of the entire effort. On the other hand, teaming of industry-to-industry, industry-to-academia, and others along with government involvement may present an advantage in some cases to provide the needed expertise, addressing the wide range of requirements and challenges of this program. Hereafter, participants are noted as offeror team and government team in this solicitation.

#### **1.4 Program Plan**

It is envisioned that the government team will use the multiple phase approach to give several development path options. This may allow the concentration of resources later on in the program to more promising offeror team approaches. An offeror team with a specific skill set is encouraged to deliver a plan for how the entire program will be carried out.

The government team believes it is essential that competent analytical analysis accompany studies, testing, and validation methods to bring about development success. In addition, the offeror team must present a sound plan for making their concept(s) producible and affordable.

The government team will independently assess progress made by the offeror team. As such, the offeror team will provide engineering models, computer models, drawings, test setup details, and detailed data to support the independent analyses by the government team. Information and reports of data analysis must be shared by both parties in a timely manner to support independent analyses and performance assessments.

The detail and formats of the supporting data may change throughout the program. However, it is the intent of the government team to ensure that the offeror team has sufficient time to respond to any changes and provide the necessary data. The selection criteria and phase progression will be heavily weighted on the independent analyses and supporting engineering information used in conjunction thereof.

The government team reserves the right to modify the program plan, including the number of phases, phase duration, exercise of options, the data required for independent analyses, the review process, the evaluation criteria, as well as the goals and objectives. However, every effort will be made to hold all of the aforementioned parameters constant once contracts are awarded. Any changes that occur prior to contract award will be announced by submitting an amendment to this BAA. It is the responsibility of the offeror team to ensure awareness of BAA amendments that are released. Qualified offeror's are determined by the means described in Section 8 of this solicitation.

NAWCWD will not issue paper copies of this BAA. NAWCWD reserves the right to select for award, all, some or none of the Proposals in response to this BAA. NAWCWD reserves the right to fund all, some, or none of the Proposals received under this BAA. NAWCWD provides no funding for direct reimbursement of proposal development costs. Technical and Cost Proposal (or any other material) submitted in response to this BAA will not be returned. It is the policy of NAWCWD to treat all Proposals as Competition Sensitive Bid and Proposal Information and to disclose their contents only for the purpose of evaluation.

## **1.5 Program Background/Needs/Potential Phases**

The Navy is working to develop weapons that give the warfighter the flexibility to select a damage radius that a weapon would generate, or possibly the type of effect a weapon will place on a specific target. Current asymmetric warfare scenarios require some targets to be immediately neutralized with minimal effect to the surrounding area. Targets vary from personnel in buildings, to personnel in the open, and to personnel located in complex urban settings. Current cylindrical steel-cased blast fragmentation warheads distribute fragmentation radially in all directions from the detonation point. Often, many fragments travel far beyond the intended target. These fragments can create collateral damage hazards, especially for Military Operations in Urban Terrain (MOUT) and close air support (CAS). Thus, some of these operations require restricted rules of engagement which dictate tight control of collateral damage.

In the past, the Navy had explored dispenser submunition systems as a means of achieving multiple output modes from a single weapon system. The dispenser submunitions system has many potential disadvantages for this application. The complexity normally associated with submunition systems would generally tend to increase costs, decrease reliability, and pose greater safety and UXO (Unexploded Ordnance) concerns. In addition maintaining target penetration capability would generally be more challenging with a dispenser submunition approach.

Currently no technology has been proven to be available that can deliver repeatable and predictable multiple damage radii from a single build configuration of a unitary bomb or warhead. Developing this sort of weapon could improve tactical flexibility and effectiveness by maximizing the number of kills per sortie and reducing the timeline necessary to prosecute a wider spectrum of targets.

This BAA is targeted to develop and demonstrate technology that will enable a 500 lb class bomb with 2 or more cockpit selectable output modes using MIL-STD-1760 or other existing aircraft-to-weapon interfaces. Current and planned future Navy, Marine and Air Force combat aircraft should be considered. It is envisioned that one output mode will have lethality comparable to the current BLU-111. It is also envisioned that one output mode will have as small of a collateral damage radius as possible consistent with maintaining a high degree of lethality against a variety of targets including, but not limited to personnel in the open and in buildings and stationary and moving unarmored vehicles, assuming current CEP's (Circular Error Probable) and TLE's (Target Location Error). A key element of any technology pursued is that it shall not accidentally function in a higher collateral damage mode than desired or commanded. It is currently desired that the end product retain the overall aerodynamic shape and mass properties of the existing BLU-111 in order to maintain compatibility with precision guidance kits, JDAM and LGB, and minimize future integration efforts. It is highly desired that all explosive material be consumed or other wise rendered safe when the weapon is functioned regardless of output mode selected. The end product should be consistent with typical weapon design considerations such as Insensitive Munitions, fuze safety (MIL-STD-1316), energetic material qualification requirements (MIL-STD-1751) etc. The end product should be able to function reliably and safely after environmental extremes encountered during a normal military lifecycle and during normal operating extremes. The design should be focused to minimize production and lifecycle costs.

It is desired that proposals address the below list of general characteristics.

- Clear descriptions of at least two (2) output modes
- Clear descriptions of how the output modes will be selected (MIL-STD-1760, Fuze Function Control Set, etc.)
- Clear description of Aircraft integration efforts that would be required
- Descriptions of how the weapon will optimize target defeat and minimize collateral damage
- Estimates for lethal and collateral damage radii for each output mode
- Assessment of insensitive munitions response
- Assessment of UXO risk
- Assessment of technology readiness level
- Description of technical risks and associated risk mitigation plans
- Estimate of production costs assuming 2000 units per year for 5 years
- Provide programmatic information including schedules and costs necessary to achieve a mature system to enter System Design and Development phase by, or before, the 2015 timeframe.

A phased approach is required. Phase I will be a base contract. Phase II and Phase III are priced options. Phase I of this BAA will focus on analyses and testing to select or verify technologies and configurations that will meet a variety of potentially competing operational requirements. Part of the intent of Phase I is to determine what technologies are most appropriate for a 500 pound class bomb and also what technologies, if deemed not appropriate for a 500 pound bomb, might be appropriate for transition to other weapon systems. Extensive analysis is anticipated during Phase 1 with up to \$1.8M of total money for investigations by 1 to 3 offeror teams over a period of time to not exceed 12 months. During the first 4 months of Phase I, offeror teams will be expected to generate predicted polar Zone Data files (ZDATA) and TNT blast equivalency for all output modes used to obtain lethality predictions in accordance with

the Joint Munitions Effectiveness Manual (JMEM). The offeror teams will also be expected to provide design documentation so that independent government estimates of fragmentation and blast output can be performed. During the second 4 months of Phase I, offeror teams will be expected to generate, for all warhead modes, probability of kill estimates against a target list that will be provided by the Government approximately 4 months after contract award. Offeror teams will provide warhead performance estimates sufficient to allow Collateral Damage estimate calculations for both output modes. The remaining 4 months of Phase I should involve establishing test configurations and test parameters to establish, as a minimum, that all sub-systems will function correctly. The period of performance for Phase I should not exceed 12 months. The total cost for Phase I should not exceed \$600K.

For Phase II, the intent is to focus efforts on maturing technologies of the various subsystems required to achieve selectable output and mitigate risk associated with transitioning the technology into the design having the same aerodynamic shape, mass properties and interfaces as the existing BLU-111. Extensive analysis and sub-scale tests are anticipated during Phase II with up to \$7M of total money for investigations by 1 to 2 offeror teams over a period of time to not exceed 21 months. The total cost for Phase II should not exceed \$3.5M

The purpose of Phase III is to integrate sub-systems to demonstrate a selectable output 500 pound class bomb with multiple outputs that can be selected by the pilot from the cockpit. This phase is to end with a technology that is at, or above, TRL 6. It is anticipated that at least 2 warhead arena tests, one test for each output mode, will be required to characterize the blast and fragmentation output for each output mode. The period of performance for Phase III will not exceed 24 months. The total cost for Phase III should not exceed \$5.8M

The total time span for this BAA will not exceed 5 years

The government team will review all offeror team proposals, statements of work, and progress towards the program goals. Assessments will be done through formal presentations, reports, quarterly reviews by the offeror team, and end of phase reviews. Prior phase objectives which are presented later must be met for offeror team success in advancing to the next phase. Technical Readiness Level 6 is the goal for prototype demonstration in a relevant ground test environment at the completion of the Phase III effort. Anticipated schedule follows:

<b>Planned Schedule of Events</b>						
Event	CY09	CY10	CY11	CY12	CY13	CY14
Proposals Due by 1500 PST	14 Sept					
Source Selection	Oct					
Award Phase I Contracts		Jan				
Award Phase II Contracts			Jan			
Award Phase III Contracts				Oct		

## 2.0 POINTS OF CONTACT

**2.1 Questions of a business nature shall be directed to the Contracts Competency Point of Contact, as specified below:**

Business Point of Contact:

Kristin Ferguson  
Naval Air Warfare Center Weapons Division  
Code: 210000D  
429 E. Bowen Rd  
Mailstop 4015  
China Lake, CA 93555-6107  
Email: kristin.ferguson@navy.mil

**2.2 Questions of a technical nature shall be directed to the Technical Point of Contact, as specified below:**

Science and Technology Point of Contact:

Lee Hardt  
Naval Air Warfare Center Weapons Division  
Code 478200D  
Stop 5402  
2400 E. Pilot Plant Road  
China Lake, CA 93555-6107  
Email: lee.hardt@navy.mil

**Note: All communications shall be submitted via e-mail. All questions to the Technical Point of Contact (POC) shall be sent via e-mail with a copy to the designated Business POC. Questions submitted within 2 weeks prior to a deadline may or may not receive a response.**

**2.3 Instrument Type**

The anticipated type of contract to be awarded is a Cost Plus Fixed Fee (CPFF) contract. Anticipated award dates range from January through March, 2010. Offerors should state that their proposals are valid for 180 days from submission.

**3.0 AWARD INFORMATION**

Contracts will be phased as described in part 1.5 of this solicitation.

Offeror teams are advised that only Contracting Officers are legally authorized to commit the Government. All responsible sources may submit Proposals in response to this BAA which shall be considered by the agency. Any contracts awarded as a result of this BAA shall be to U.S. owned companies only.

**4.0 APPLICATION AND SUBMISSION FORMAT/CONTENT FOR PROPOSALS**

The due date for receipt of proposals is 14 Sep, 2009, 1500 Pacific Standard Time. It is anticipated that any final selections will be made approximately 45 days later. As soon as the final proposal evaluation process is completed, the offeror will be notified via email or letter of selection or non-selection for a contract award. Proposals exceeding the page limit may not be evaluated.

**Full Proposal Format Shall Include:**

Paper Size: 8.5 x 11 inch paper, also will allow up to six pages of 11X17 inch paper for schedule and/or design concept foldouts

Margins: 1 inch

Spacing: Single or double-spaced

Font: Arial, no less than 10 point

Number of Pages: Volume 1 is limited to no more than 40 pages. Volume 2 does not have a page limitation. Double sided printing is encouraged. The Cover Page, Table of Contents, Statement of Work and Resumes are excluded from the page limitations. Full Proposals exceeding the page limit may not be evaluated.

Copies: One (1) original, one (1) copy, and two (2) electronic copies on a CD-ROM, (in Microsoft Office or PDF format).

### **Volume 1 – Technical Proposal Content Shall Include:**

Cover Page: This page should include the words “Technical Proposal” and the following:

- BAA Number:

- Selectable Output Weapons

- Identity of Prime Offeror and complete list of subcontractors, if applicable

- Technical contact (name, address, phone/fax, electronic mail address)

- Administrative/business contact (name, address, phone/fax, electronic mail address)

- Duration of effort (differentiate basic effort and options)

Table of Contents: (not included in page count)

Statement of Work: A Statement of Work (SOW) clearly detailing the scope and objectives of the program and the technical approach to be taken. If the work is phase dependent, designate work by phase. Include a detailed listing of the technical tasks organized by year and program phase. It is anticipated that the proposed SOW will be incorporated as an attachment to the resultant award instrument. To this end, such SOWs must be detachable stand alone documents without proprietary restrictions, which can be attached to the contract.

Prototype Concept Description: A description of the effort that articulates an understanding of the capabilities desired and how the offeror’s proposed technologies will be integrated into a single platform to achieve NAWCWD’s objectives. Include a description of risk reduction technology development or demonstrations, if any, required prior to preliminary or detail design.

Project Schedule and Milestones: The proposal should include a detailed listing of the technical tasks/subtasks in Work Breakdown Structure format and also organized by year. The proposal should also include a schedule of events and milestones for the proposed program keyed to the work breakdown structure and program phases. Deliverables and program review dates should be included. Total program length for 3 phases will not exceed 5 years.

Assertion of Data Rights: Include here a summary of any proprietary rights to pre-existing results, prototypes, or systems supporting and/or necessary for the use of the research, results, and/or prototype. Any data rights asserted in other parts of the proposal that would impact the rights in this section must be cross-referenced. If there are proprietary rights, the Offeror must explain how these affect its ability to deliver research data, subsystems and toolkits for integration. Additionally, Offeror team must explain how the program goals are achievable in light of these proprietary limitations. If there are no claims of proprietary rights in pre-existing data, this section shall consist of a statement to that effect.

**Deliverables:** See section 7 of this solicitation for a general listing of required deliverables. A preliminary contract data requirements list (CDRL) is included as item 8, listing the plans, schedules, results and other products for delivery during and at the completion of each phase of the program. A detailed description of the results and products to be delivered for each phase of the program is required.

**Management Approach:** A discussion of the overall approach to the management of this effort, including brief discussions of the total organization, use of personnel; project/function/subcontractor relationships; government research interfaces; and planning, scheduling and control practice. Identify which personnel and subcontractors (if any) will be involved. Include a description of the facilities that are required for the proposed effort with a description of any Government Furnished Equipment/Hardware/Software/ Information required, by version and/or configuration.

**Experience:** A description of the experience and qualifications of the offeror, subcontractors, and key personnel relevant to the proposed effort. Specific examples of work accomplished similar in complexity, magnitude and technical content to that proposed should be provided. Brief resumes (not included in page limitations) of key prime and subcontractor personnel may be included.

## **Volume 2 – Cost Proposal Content Shall Include:**

The Cost Proposal shall consist of a cover page and two parts. Part 1 will provide a detailed cost breakdown of all costs, by cost category, by Government fiscal year. Part 2 will provide a cost breakdown by task/sub-tasks corresponding to the task numbers in the proposed Statement of Work. Each Program Phase must be separately priced.

**Cover Page.** The words “Cost Proposal” should appear on the cover page in addition to the following information:

BAA Number:

Selectable Output Weapons

Identity of prime Offeror team and complete list of subcontractors, if applicable

Technical contact (name, address, phone/fax, electronic mail address)

Administrative/business contact (name, address, phone/fax, electronic mail address)

Defense Contract Audit Agency (DCAA) contact (name address/ phone/fax, electronic address).

DCAA contacts must also be provided for all subcontractors.

Defense Contract Management Agency (DCMA) (name, address, phone/fax, electronic mail address).

DCMA must be also provided for all subcontractors.

Duration of effort (separately identify basic effort and any proposed phases/options)

**Part 1:** Detailed breakdown of all costs, by cost category, by program phase, by Offeror's fiscal year, and government's fiscal year. Note: When options are contemplated, options must be separately identified and priced by the appropriate year.

**Direct Labor** – Individual labor category or person, with associated labor hours and unburdened direct labor rates

**Indirect Costs** – Fringe Benefits, Overhead, G&A, etc. (Must show base amount and rate)

**Travel** – Number of trips, number of personnel traveling, destination, duration, etc.

**Subcontract** – A cost proposal as detailed as the Offeror's cost proposal will be required to be submitted by each subcontractor. The subcontractor's cost proposal can be provided in a sealed envelope with the Offeror team cost proposal or will be requested from the subcontractor at a later date.

**Consultant** – Provide consultant agreement or other document which verifies the proposed loaded daily/hourly rate.

**Materials** should be specifically itemized with costs or estimated costs. An explanation of any estimating factors, including their derivation and application, shall be provided. Include a brief

description of the Offeror team procurement method to be used (Competition, engineering estimate, market survey, etc.).

Other Directs Costs, particularly any proposed items of equipment or facilities. Equipment and facilities generally must be furnished by the contractor/recipient. (Justifications must be provided when Government funding for such items is sought). Include a brief description of the Offeror team procurement method to be used (Competition, engineering estimate, market survey, etc.

Fee/Profit including fee percentage.

Details/explanation of all other cost items should be given in this section.

## **Part 2:**

Cost breakdown by task/sub-task and program phase using the same task numbers in the Statement of Work

A Certificate of Current Cost and Pricing is required before an award can be made for proposals over \$650,000.

State whether the proposal includes DCAA approved Forward Pricing Rate Agreement (FPRA) for direct and indirect rates. This also applies to any subcontractors that are proposed.

Include a "Facilities Capital Cost of Money Form", DD 1861 if applicable.

## **5.0 ADMINISTRATIVE**

Successful Offeror teams not already registered in the Central Contractor Registry (CCR) will be required to register in CCR prior to award of any contract. Information on CCR registration is available at <http://www.onr.navy.mil/02/ccr.htm>.

As prescribed in FAR 12.301(b)(2), all offeror teams shall complete the annual Representations and Certification electronically at <http://orca.bpn.gov> prior to submittal of proposals.

Subcontracting Plans - Successful contract proposals that exceed \$500,000, submitted by all but small business concerns, will be required to submit a Small Business Subcontracting Plan in accordance with FAR 52.219-9 with your proposal.

Export Control Technology. Potential offeror teams under this announcement are reminded of the Export Administration Regulations, the International Traffic in Arms Regulations, and DoD Regulations restricting the release of critical technologies, including technical data, to foreign nationals.

### **5.1 Significant Dates and Time:**

<b>Anticipated Schedule of Events</b>		
Event	Date	Time
Full Proposal Due Date	14 Sep, 2009	3:00 PM PST
Notification of Selection of Award	2 Nov, 2009	
Contract Award	January 2010	

## **6.0 SPECIAL CONSIDERATIONS**

Initiation of a subsequent Phase of a multiple task Phase project will be contingent on satisfactory completion of the preceding task and availability of funding.

Data rights to the tasks accomplished and associated hardware and documentation with exception of data patented prior to initiation of the contracted project shall belong to the Government.



Total length of the anticipated period of performance is up to 60 months after contract award.

If the proposed work involves use of Government developed technologies, concepts, or facilities these must be described in the proposal as part of the overall plan. The proposal shall clearly indicate which task(s) is/are to be performed by the offeror team and which task(s) is/are to be performed by the Government team.

Note that some interchange meetings will involve travel to China Lake or DC area and need to be considered in the budget.

The number of contracts awarded under this BAA will be dependent upon available funding and merit of the proposals. Contracts may be awarded for greater or lesser amounts based on assessment of the proposal's contribution to the Navy selectable output weapon objectives. To facilitate a partial award, cost must be easily identifiable for each subtask of each separate task. NAWCWD reserves the right to select for award any, all, or none of the proposals received. Also, NAWCWD reserves the right to select all, partial, or none of the tasks in a specific Phase I, II and III proposal.

## **7.0 DATA DELIVERABLES**

1. Monthly informal progress reports, in contractor format, providing a brief (one page) summary of technical progress and major problems. This report can be electronically transmitted to NAWC. If classification is an issue, arrangements will be made for receipt of the report. The report is due at NAWC WD 5 days after the last day of the month.
2. Quarterly informal report, in contractor format, providing summary of technical progress, brief statement of plans for the forthcoming quarter, and pertinent management information. This report is due at NAWC WD by the close of business of the first working day of the new quarter. This report may also be telecopied in the same manner as the monthly report, but a separate submission of the report must be provided to NAWC WD by mail. The monthly report for the last month of the quarter will be replaced by this quarterly report.
3. Formal End of Phase report, in NAWC WD format (to be provided at contract award), at the completion of each phase of the contract effort. Three copies of the report draft are due at NAWC WD for review 30 days after completion the technical effort of each phase. After approval, a publication-ready report manuscript and one (1) copy will be provided NAWC WD.
4. Oral presentation at NAWC WD or other government or associated laboratory or contractor facility of technical accomplishments at the completion of each task/subtask. The oral presentations will include slides, e.g., Microsoft PowerPoint or similar, the slides will include amplifying notes, and electronic copies of the slides and notes will be provided in a standard format such as Microsoft PowerPoint or Word or Adobe Acrobat Portable Data Format. The end of Phase review and report may be used to cover this item as agreed upon by the government and offeror teams.
5. Test plan, in contractor format. Three copies of each test plan are due at NAWC WD for review 30 days prior to the scheduled test date.
6. Test report, in contractor format. Three copies of each test report are due at NAWC WD for review within 45 days following the actual test date. Each test report will include a CD or CDs containing relevant data collected during the test in a standard electronic format such as ASCII, Microsoft Excel, or DPlot and will include data file field definitions.

7. Modeling plan, as applicable, including verification, validation, and accreditation history and plans relevant to maturing selectable output weapons.

8. A preliminary contract data requirements list (CDRL) follows, listing the plans, schedules, results and other products for delivery during and at the completion of each phase of the program.

<b>CONTRACT CDRLs – SELECTABLE OUTPUT WEAPONS</b>				
<b>Title</b>	<b>Due</b>	<b>Phase1</b>	<b>Phase 2</b>	<b>Phase 3</b>
Organization chart/POC list	Beginning of Phase	X	X	X
Analyses, performance estimates, design data	As data created (EOM)	X	X	X
Bill of Materials	At Phase completion	X	X	X
CAD design drawing package (PDF format)	At Phase completion	X	X	
CAD models & modeling data (IGES format)	Models when 1st used. Data 15DA collection	X	X	
Phase I Detailed Schedule	15DA contract award	X		
Phase II Detailed Schedule	15DA contract award		X	
Phase III Detailed Schedule	15DA contract award			X
Phase I Development Plan	15DA contract award	A		
Phase II Development Plan	15DA contract award		A	
Phase III Development Plan	15DA contract award			A
End of Phase report / Oral Presentation	At EOP review	X	X	X
Interim Report	At Phase completion	X	X	
Final Report	At Phase III completion			X
Manufacturing Cost Estimates	At Phase completion	X	X	X
Progress report - Monthly/Quarterly	30DA contract award. Monthly thereafter.	X	X	X
Manufacturing Plan	At Phase 2 & 3 completion		X	X
Risk Reduction Plan	15DA contract award	X	X	X
Test data	NLT 15DA task completion	X	X	X
Test Plan & Test Procedure	15DP start of each test	A	A	X

A = Approval Required by the Government

DA/DP = days after / days prior; EOM/EOP = end of month / end of phase

## 8.0 PROPOSAL EVALUATION

Proposals will be evaluated using a scientific review process performed by an evaluation team of Government experts drawn from the Navy and other agencies as necessary. All members of the evaluation team will be bound by appropriate non-disclosure agreements to protect proprietary and source selection sensitive information.

Per FAR 35.016(e), the primary basis for selecting proposals for acceptance shall be technical merit, importance to agency programs, individual phase cost and total cost, and funding availability. Cost realism and reasonableness shall also be considered to the extent possible.

## 8.1 Technical Evaluation

Technical proposals submitted in response to this BAA will be evaluated in accordance with the following criteria in descending order of importance:

1. The technical merits of the proposed approach shall be evaluated on, but not limited to, clear definition of objective, soundness of technical and analytical approach, risk assessment, logical sequence of tasks, and application of resources.
2. The offeror team capabilities, related experience, awareness of state-of-the-art, understanding of the scope of the problem and facilities or unique combinations of these qualities that are integral factors for achieving the proposed objective(s).
3. The proposal will be evaluated on the offeror's quality of performance and experience in similar or related tasks/contracts with special attention to system's engineering, weapons, and risk mitigation.

## 8.2 Cost Evaluation

Cost, which includes consideration of proposed budgets and funding profiles, and cost elements as they relate to the technical effort are the second evaluation area. The cost evaluation criteria consist of:

1. A proposal's price realism will be evaluated based on total price, supporting data, planned resources and task schedule.
2. Reasonableness

Organization and clarity of information are critical to all of the evaluation criteria. The cost of preparing proposals in response to this announcement is not an allowable direct charge to any resulting contract or any other contract.

Upon receipt of a proposal, the NAWCWD evaluators will perform an initial review of its scientific merit and potential contribution to the Navy's mission and also determine if funds are expected to be available for the effort. Proposals not considered having sufficient scientific merit and/or relevance to the Navy's needs or those in areas for which sufficient funds are not expected to be available may be declined without further review.